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Mapping the Amazon River Basin with the JERS-1 SAR

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Between 1995 and 1996, the entire Amazon River Basin was mapped twice by the NASDA JERS-1 SAR. The first mapping occurred during the low flood of the Amazon River, while the second occurred during the high flood of the Amazon River. Since the JERS-L-band SAR efficiently detects flooding conditions, we may estimate the amount of flooding that occurred between these two dates.

In addition to estimating the inundation extent, the JERS-1 SAR data may be used to reliably classify a small number of land cover types : low vegetation, forest, open water, flooded forests, and urban. The accuracy and number of classes may be increased by using data from both mapping cycles.

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